

BeneHeart R3A

Electrocardiograph

Physical

| | |
|---------|--|
| Height: | 56 mm |
| Width: | 260 mm |
| Depth: | 194 mm |
| Weight: | 1.2 Kg including battery, internal AC power supply |

Processing

| | |
|--------------------------------|--|
| ECG analysis sampling rate: | 500 samples/ second (sps) |
| Digital sampling rate: | 1000 samples/ second/ channel |
| Pacer detection sampling rate: | 16,000 samples/second/channel |
| ECG amplifier: | DC-coupled |
| Acquisition mode: | Pre-acquisition or post-acquisition, provide 10 seconds of instantaneous ECG acquisition |
| Dynamic range: | AC Differential ± 10 mV, DC offset ± 600 mV |
| Resolution: | 1 μ V/LSB @ 500 sps |
| Frequency response: | -3 dB @ 0.05 Hz to 150 Hz |
| Baseline drift filter: | 0.05 Hz, Baseline Drift Removal(BDR) |
| High cut-off frequency: | 20 Hz, 35 Hz, 150 Hz |
| AC filter: | 50/60 Hz ± 0.3 Hz |
| Common mode rejection: | ≥ 110 dB (with AC filter switched off) |
| ADC: | 24 bit |
| Input impedance: | ≥ 50 M Ω @ 10 Hz, defibrillator protected |
| Patient leakage: | <10 μ A |
| Heart rate meter: | 30 to 300 BPM $\pm 10\%$ or ± 5 BPM, whichever is greater |
| Startup time: | ≤ 5 second |
| Sensitivity/gain: | 5, 10, 20 mm/mV, Auto |

Display

| | |
|---------------------|---|
| Color: | 24 bit Color display |
| Display type: | 5 inch diagonal, 16: 9 aspect ratio, TFT LCD with LED graphics backlit |
| Display resolution: | 800 * 480 |
| Display data: | Patient ID, gender, age, heart rate, clock, battery power indicator, waveforms, lead labels, speed, gain, filter settings, warning messages, information messages, network status and USB |

Power

| | |
|---------------|--|
| Power supply: | AC input (without external power adaptor) or battery operation |
|---------------|--|

AC Power

| | |
|----------------|---------------------------|
| Input voltage: | 100 to 240 VAC $\pm 10\%$ |
| Input power: | 60 VA |
| AC frequency: | 50/60 Hz ± 3 Hz |

Battery

| | |
|----------------------|--|
| Battery type: | rechargeable Lithium ion battery |
| Battery capacity: | 11.1 V typical, 2500 mAh 6 hours of continuous operation without recording or 500 ECGs in 2.5 x 4 format at 25 mm/s and 10 mm/mV |
| Battery charge time: | 3.5 hours with power off |



Writer

| | |
|----------------------------|--|
| Writer technology: | Thermal dot array |
| Writer Width: | 80 mm |
| Writer speed: | 5, 12.5, 25, 50 mm/s |
| Number of traces: | 3 leads + 1 rhythm or 3 leads; user selectable |
| Writer speed accuracy: | $\pm 5\%$ |
| Writer amplitude accuracy: | $\pm 5\%$ |
| Writer resolution: | Horizontal 32 dots/mm @ 25 mm/s, Vertical 8 dots/mm |
| Paper type: | Thermal roll paper (20 m) & Z- fold paper (80 mm width, 200 sheets/pack) |

Software

| | |
|---------------------------------|--|
| Measurement and interpretation: | Supports measurement and interpretation with the University of Glasgow ECG analysis algorithm |
| Resting ECG mode: | Records and prints 12-lead resting ECG with 10-second duration as a standard feature |
| Supported patient information: | Patient ID, secondary ID, age, date of birth, gender, race, medication, class and V3 electrode Placement |
| Internal storage: | 800 ECGs in internal memory |
| ECG Storage format: | PDF format and Mindray storage format |
| Multi-language support: | Supports 13 languages |

Report Formats

| | |
|---------------------------------|---|
| Thermal printer report formats: | 4 by 2.5 s (Sequential) |
| | 4 by 2.5 s Compact |
| | 4 by 2.5 s + 1 rhythm lead |
| | 4 by 2.5/5/7.5/10 s (Simultaneous) |
| | Autorhythm (60 second ECG data for 1 rhythm lead) |
| | Continuous 1 or 3 channel manual rhythm |
| PDF report format: | 4 by 2.5 s + 1 rhythm lead |
| (A4/letter format) | 2 by 5 s |
| | 2 by 5 s + 1 rhythm lead |
| | 1 by 10 s |

Accessories

| |
|---|
| ECG patient cable with banana plugs, Limb Clamps, Chest Bulbs (IEC/AHA) |
| ECG cable with Electrode clips (IEC/AHA) |
| Country-specific power cords |
| Z-fold and Roll paper |

Environmental Specification

Temperature

| | |
|--------------------|-----------------|
| Operating: | 0 °C to 40 °C |
| Transport/storage: | -20 °C to 60 °C |

Humidity

| | |
|--------------------|------------------------------|
| Operating: | 15% to 95% RH non-condensing |
| Transport/storage: | 10% to 95% RH non-condensing |

Pressure

| | |
|--------------------|-----------------------|
| Operating: | 57.0 kPa to 107.4 kPa |
| Transport/storage: | 16.0 kPa to 107.4 kPa |



BeneHeart R3A Electrocardiograph

Your Faithful Consultant for Resting ECG Diagnosis

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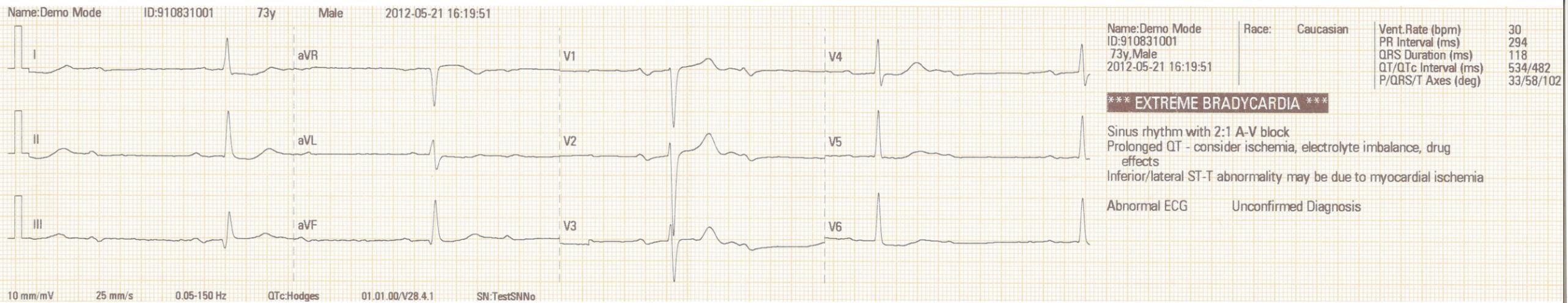
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P/N: BeneHeart R3A-210285x4P-20130523



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healthcare within reach

BeneHeart R3A

Electrocardiograph



The Glasgow algorithm is the first to be based on specific variables, including age, gender, race, medication, and class in order to maximize the accuracy of the ECG interpretation.

On the report, a headline may highlight one of several "critical value warnings" to alert medical attendants of findings that need immediate attention.

Reliable Analysis

BeneHeart R3A utilizes the University of Glasgow ECG analysis algorithm, one of the world-leading resting ECG interpretations with 50 years of history.

Clear Display

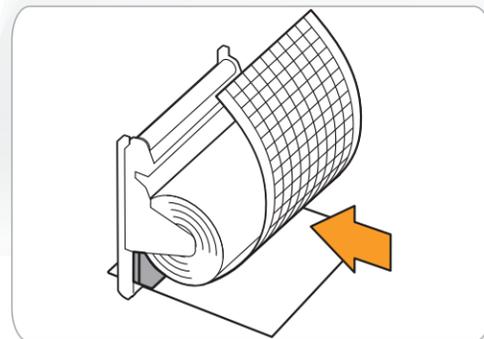
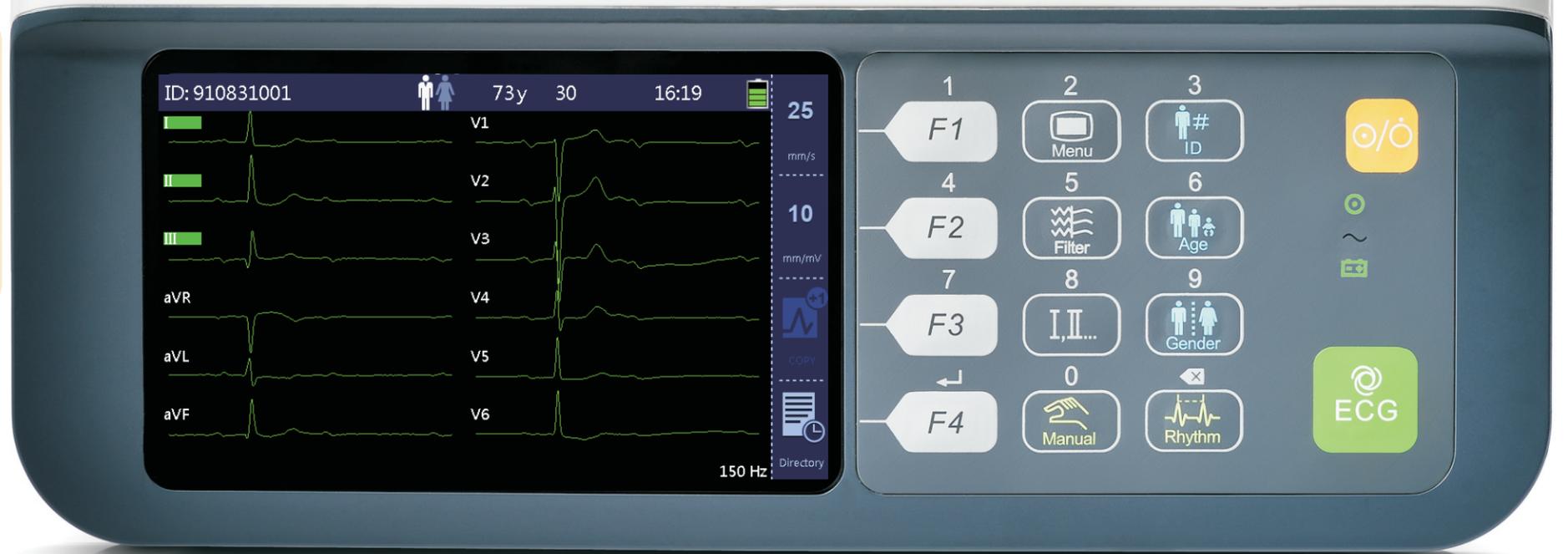
5-inch color screen offers the highest resolution in industry, enabling clinicians to observe real-time waveforms accurately.

Great Portability

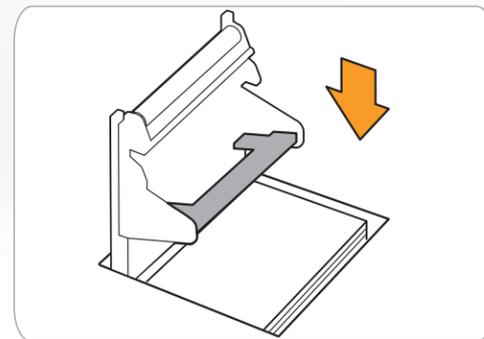
The BeneHeart R3 weighs only 1.2kg with battery, easy to carry.

Convenient Operation

ECG recording is automatically unfolded on the writing pad on top of the machine for notes or signature.



With rolling paper



With Z-fold paper

Unique Recorder

Compatible with both rolling paper and Z-fold paper, you can easily switch between these two styles of papers without dismantling the pressure lever.